0590
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0913

RAW SEQUENCE LISTING   DATE: 09/18/2001
PATENT APPLICATION: US/09/942,407   TIME: 16:20:49

Input Set : D:\30062-20049.txt
Output Set: N:\CRF3\09182001\I942407.raw   # 2

ENTERED

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    4 <110> APPLICANT: Kosan Biosciences, Inc.
    5        Santi, Daniel
    6        Peck, Larry
    7        Dayem, Linda
    8        Kealey, James
   10 <120> TITLE OF INVENTION: ISOLATED GENE FOR METHYLMALONYL COA EPIMERASE AND USES
THEREOF
   13 <130> FILE REFERENCE: 30062-20049.10
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/942,407
C--> 16 <141> CURRENT FILING DATE: 2001-08-29
   18 <150> PRIOR APPLICATION NUMBER: US 09/699,136
   19 <151> PRIOR FILING DATE: 2000-10-27
   21 <150> PRIOR APPLICATION NUMBER: US 60/161,414
   22 <151> PRIOR FILING DATE: 1999-10-25
   24 <150> PRIOR APPLICATION NUMBER: US 60/161,703
   25 <151> PRIOR FILING DATE: 1999-10-27
   27 <150> PRIOR APPLICATION NUMBER: US 60/206,082
   28 <151> PRIOR FILING DATE: 2000-05-18
   30 <160> NUMBER OF SEQ ID NOS: 2
   32 <170> SOFTWARE: FastSEQ for Windows Version 4.0
   34 <210> SEQ ID NO: 1
   35 <211> LENGTH: 447
   36 <212> TYPE: DNA
   37 <213> ORGANISM: Artificial Sequence
   39 <220> FEATURE:
   40 <223> OTHER INFORMATION: Isolated and recombinant form of the full
   41        epimerase gene sequence
   43 <221> NAME/KEY: CDS
   44 <222> LOCATION: (1)...(444)
   46 <400> SEQUENCE: 1
   47 atg agt aat gag gat ctt ttc atc tgt atc gat cac gtg gca tat gcg        48
   48 Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala
   49  1               5                  10                  15
   51 tgc ccc gac gcc gac gag gct tcc aag tac tac cag gag acc ttc ggc        96
   52 Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly
   53             20                  25                  30
   55 tgg cat gag ctc cac cgc gag gag aac ccg gag cag gga gtc gtc gag       144
   56 Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu
   57          35                  40                  45
   59 atc atg atg gcc ccg gct gcg aag ctg acc gag cac atg acc cag gtt       192
   60 Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val
   61       50                  55                  60
   63 cag gtc atg gcc ccg ctc aac gac gag tcg acc gtt gcc aag tgg ctt       240
   64 Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu
   65  65                  70                  75                  80
   67 gcc aag cac aat ggt cgc gcc gga ctg cac cac atg gca tgg cgt gtc       288
   68 Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val
   69                  85                  90                  95
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RAW SEQUENCE LISTING   DATE: 09/18/2001
PATENT APPLICATION: US/09/942,407   TIME: 16:20:49

       Input Set : D:\30062-20049.txt
       Output Set: N:\CRF3\09182001\I942407.raw

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71 gat gac atc gac gcc gtc agc gcc acc ctg cgc gag cgc ggc gtg cag        336
72 Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln
73             100                 105                 110
75 ctg ctg tat gac gag ccc aag ctc ggc acc ggc ggc aac cgc atc aac        384
76 Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn
77             115                 120                 125
79 ttc atg cat ccc aag tcg ggc aag ggc gtg ctc atc gag ctc acc cag        432
80 Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln
81        130                 135                 140
83 tac ccg aag aac tga                         .                         447
84 Tyr Pro Lys Asn
85 145
88 <210> SEQ ID NO: 2
89 <211> LENGTH: 148
90 <212> TYPE: PRT
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Deduced amino acid sequence of the epimerase gene
95         sequence
97 <400> SEQUENCE: 2
98 Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala
99  1               5                  10                  15
100 Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly
101            20                  25                  30
102 Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu
103        35                  40                  45
104 Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val
105     50                  55                  60
106 Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu
107 65                  70                  75                  80
108 Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val
109                85                  90                  95
110 Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln
111            100                 105                 110
112 Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn
113            115                 120                 125
114 Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln
115     130                 135                 140
116 Tyr Pro Lys Asn
117 145
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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/942,407

DATE: 09/18/2001
TIME: 16:20:50

Input Set : D:\30062-20049.txt
Output Set: N:\CRF3\09182001\I942407.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date